

ABSTRACT

A portable particle detection and removal system (100) that connects to a house vacuum (200). A particle sensor (106) is connected between two hoses: one (102) connected to the house vacuum (200) and one (104) for vacuuming the wafer equipment chamber. A smaller diameter hose (104) may be used for vacuuming the wafer equipment chamber. The particle sensor detects (106) incoming particles and a particle count is displayed for the operator. A modulated cleaning system (112) modulates the vacuum pressure in the second hose (104) between two vacuum pressure states.